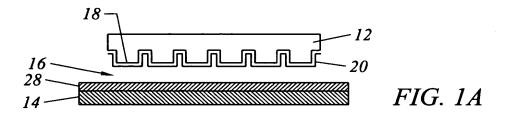
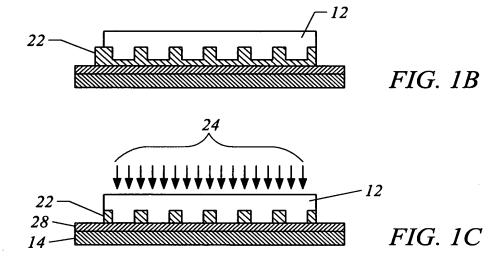


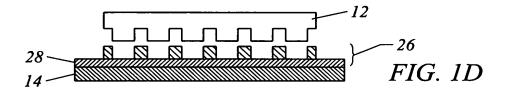
Inv.: Willson et al.
Att'y: Kenneth C. Brooks (512) 339-7760

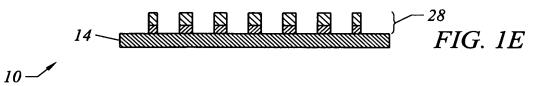
REPLACEMENT DRAWING

1/7









OT 15 2004 32

App. No. 09/905,718 Att'y Dkt No: PA27-02Q12

Inv.: Willson et al.
Att'y: Kenneth C. Brooks (512) 339-7760

2/7

REPLACEMENT DRAWING

Course Orient Template and Substrate (done periodically) 34 Control Spacing between Template and Substrate to Create Uniform Gap (may be required for every die) 36 Dispense Liquid in Gap (either prior to or after creating uniform gap) 38 Close Gap and Cure Liquid 40 Separate Template from Substrate *30* — Etch to Remove Residual UV 42 cured material formed below Template - (Oxygen Etch Transfer Layer if high aspect ratio needed)

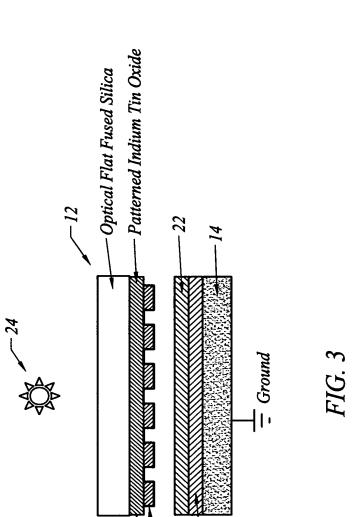
FIG. 2



Inv.: Willson et al.
Att'y: Kenneth C. Brooks (512) 339-7760

3/7

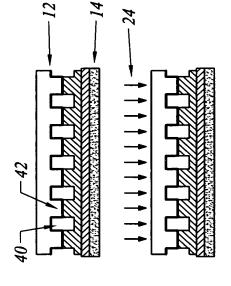
REPLACEMENT DRAWING



28-

Inv.: Willson et al. Att'y: Kenneth C. Brooks (512) 339-7760 REPLACEMENT DRAWING

4/7

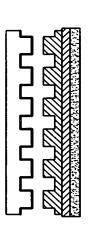


 Apply electric field and maintain uniform gap to

adhere to the template

induce the liquid to

UV cure the liquid



Separate the template

from the substrate

Etch to break-through UV cured liquid, followed by RIE etch transfer into



high-aspect ratio structure

transfer layer to obtain

FIG. 4

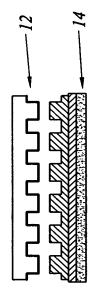


Inv.: Willson et al.
Att'y: Kenneth C. Brooks (512) 339-7760

5/7

REPLACEMENT DRAWING

27



maintain uniform gap to

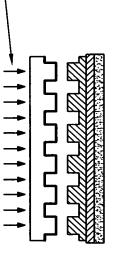
induce the liquid to be

Apply electric field and

attracted to the template

without making contact

UV cure the liquid



Etch to break-through UV cured liquid, followed by RIE etch transfer into transfer layer to obtain high-aspect ratio structure



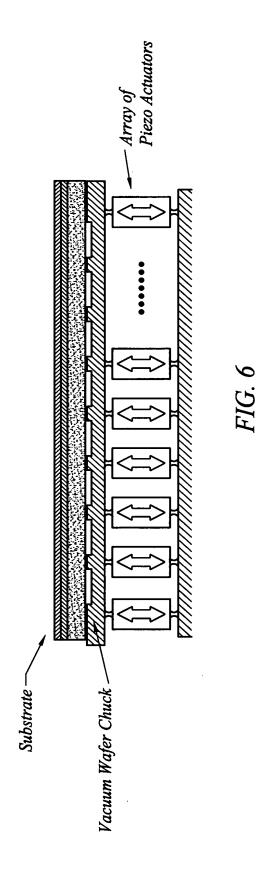
FIG. 5



Inv.: Willson et al. Att'y: Kenneth C. Brooks (512) 339-7760

6/7

REPLACEMENT **DRAWING**





Inv.: Willson et al.
Att'y: Kenneth C. Brooks (512) 339-7760

REPLACEMENT DRAWING

7/7

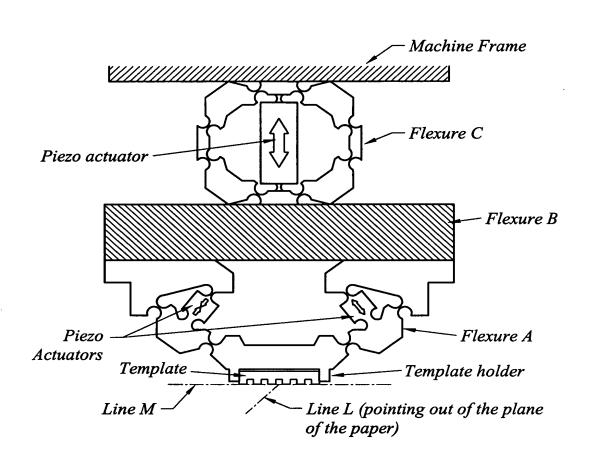


FIG. 7